

**Thomas A. Blanchard, Sr.**  
*NY Marine Surveyor*  
*Wooden Boat Building/Restoration*  
74 Hill Street, Greenwich, New York 12834-1220  
Tel. 518.692.8356

*Member Association of Certified Marine Surveyors//ACMS-USA.COM*

---

# Marine Survey Checklist

September 15, 2002



**Marine Surveyor Tools**

# Marine Survey Checklist

For:	Report#:
	Date of Survey:

<b>I. General Information:</b>		
Type of Survey:		Name of Vessel:
Year:	Make:	Model:
Hull ID#:		
Official # (Documentation):		
Home Port:	Hailing Port:	
State Registration #:		
Owner's Name:		
Owner's Address:		
Survey Site:	Date of Survey:	
Designer:	Builder:	

Hull Material:		Hull Type:		
L.O.A.:		L.W.L.		
Beam:		Draft:		
Displacement:		Ballast:		
Mast Height:		Sail Area:		
DISPL/Length Ratio:		IMS Stability Index:		
Tankage:				
Fuel:		Water:		Waste:
Propulsion System:			Aux. Engine:	
Engine(s) Model:				
	Serial #	Operating Hrs.	Yr. Built	Yr. Rebuilt
Starboard				
Port				

**Comments:**

## II. Systems

### A. Hull & Structures Inspection Condition

Item	Comment		Condition
Hull Finish			
Hull Bottom	Bottom Paint		
Hull Sides	Boot Top Up		
	Boot Top Down		
Percussion and Moisture Tests			
Propeller (Hub to blade connection)			
Propeller shaft (s) (Shaft alignment & cutlass bearings)			
Struts			
Rudder (s)			

Item	Comment	Condition
Rudderpost & Bearings		
Sacrificial Anodes(s)		
Trim Tabs		
Hull-to-keel joint		
Through-hull fittings		
Transducer(s)		
Ground Plates		
Engine Intake		
Sailboat Centerboard		
Trunk		
Pendant & Pivot Pin		

B. Deck and Bridge/Cockpit Inspection			
Item	Comment		Condition
Deck Finish			
Material Condition	Surface Damage		
	Nonskid		
	Core		
<b>Deck Hardware:</b>			
Cleats			
Hinges			
Pulpit			
Anchor/Roller			
Hatches	Dimensions		
	Type		
Pulpits & Life Rails			
Cockpit Drains			
<b>Bridge/Cockpit:</b>			
Helm Station			

Item	Comment	Condition
Windscreen		
Control Panel		
Control Levers		
Steering		
Canvas & Covers		
<b>C. Spars and Rigging</b>		
Item	Comment	Condition
Mast step		
Straightness of mast		
Spreaders		
Anemometer		
Halyard Exits		
Wind Vane		

Item	Comment	Condition
Masthead Fly		
<b>Running Rigging:</b>		
Traveller		
Boom Vang		
<b>Running Rigging:</b>		
Halyards		
Wire-to-rope splice		
Shackles		
Sheets		
Furling Gear		
Rigging Eyes		
<b>Sails:</b>		
Sail Cloth		
Reinforcements		
Cringles		



Item	Comment	Condition
Battens		
Sail Inventory		

Other Comments:

D. Cabin Interior Inspection		
Item	Comment	Condition
General Condition		
<b>Cabin/Stateroom(s):</b>		
Storage		
Lighting		
Ventilation		
Interior Finishes		
Upholstery		
<b>Galley:</b>		
Refrigeration/Icebox		
Sink/Faucets		
Cook Stove		
<b>Head:</b>		
Vanity/Sink		
Shower		
Marine Toilet		

Item	Comment	Condition
Heating & Air Conditioning		
<b>Bulkheads/Frames:</b>		
Tabbing/Attachment		
Distortions		
Signs of Leakage		
Bilge		
Stringers & Floors		
Backing Plates		
Hatches and Ports		
<b>E. Fresh Water &amp; Sanitation System</b>		
Tank Capacity		
Location of Tanks		
Hoses & Valves		

Item	Comment	Condition
Pumps		
Shower		
Taps and Sinks		
Head Type		
Holding Tank & Location		
Waste Diverter Y-Valve		
Macerator Pump		
Gray Water System		
Water Heater		
<b>F. Bilge Pumping, Seacocks, &amp; Piping</b>		
Through-Hull Fitting		
Shut Off Valves		
Hoses & Clamps		
Bilge Pumps		

Item	Comment	Condition
Emergency Pumps		
Wooden Plugs		
<b>G. Propulsion</b>		
<b>Main Engine(s):</b>		
Type		
Fuel		
Manufacturer		
Year		
Horsepower		
# of Cylinders		
Indicated Hours		
Throttle Controls		
Flame Arrestor		

Other Comments:

Item	Comment	Condition
Emergency Shut Off		
Oil Level		
Oil Condition (check visually and dip magnet stick for metal filings)		
<b>Transmission(s):</b>		
Maker		
Drive Type		
Gear Ratio		
Linkage		
Cooler (type)		
Fluid		
<b>Cooling system:</b>		
Type		
Hoses & Clamps		
Seacocks & Strainers		

Item	Comment	Condition
Belts & Pulleys		
<b>Exhaust System:</b>		
Type		
House & Clamps		
<b>Fuel System:</b>		
Fuel Type		
Number of Tanks		
Manufacturing Label		
Fill Pipe Locations		
All Metallic Fittings		
Vent Location (flame protected, anti-siphon)		
Shut-off Valve		
Anti-siphon Valve		
Fuel Lines		

Item	Comment	Condition
Fuel Pump to Carburetor Hose Type (gas)		
Return Lines		
Fuel Filter		
Fuel/Water Separator		
Fuel Manifold Valve		
Hose Connections		
Clamps		
<b>Fuel Tanks:</b>		
Location		
Condition		
Mounting		
Material		



Item	Comment	Condition
Shape		
Fuel Gauge		
Electrical Bonding System		
Ignition Protection		
<b>Engine Compartment:</b>		
Stringer & Engine Beds		
Drip Pan		
Shaft Logs		
Labels & Notices		
Bilge Condition		
Power Ventilation (Blower)		

Item	Comment	Condition
Natural Ventilation		
Fire Extinguishing System		
Pyrometer Checks: (temperature readings using an infrared thermometer gun)		
Exhaust Manifold Ports		
Water Temp. Sender		
Pan Oil		
Oil Cooler		
Exhaust Manifold		
Exhaust Risers		
Exhaust Hoses, Crossovers, & Pipes		
Transmission Shaft Bearings		

H. Electrical System		
A.C. System:		
Outlets (GFCI)		
Proper Polarity		
Junction Boxes		
Isolating Transformer		
Inverter		
AC Wiring		
D.C. System:		
Batteries:		
Type and Number		
Covered & Boxed		
Wire Connections		
Battery Selector Switch		
Interior & Running Lights		

Item	Comment	Condition
DC Wiring		
Distribution Panel(s)		
Circuit Protection (take temp. readings)		
Fused Electrical Bilge Pump		
Battery Charger		
<b>Generator:</b>		
Model and Serial #		
Voltage Rating		
# of cylinders		
Indicated Hours		
Cooling System		
Flame Arrestor		
Muffler		

Item	Comment	Condition
Ventilation		
Exhaust Piping		
Accessibility		
Fuel Supply		
Fuel Filter		
Lubrication System		
Warning Labels		
<b>I. Navigation Equipment:</b>		
VHF Radio		
Compass		
Depth Finder		
Knot Log		
GPS		

Item	Comment	Condition
Wind Speed & Direction		
Loran-C Receiver		
Radar		
<b>Entertainment Equipment:</b>		
Radio/Stereo		
Television		
VCR/DVD Player		
<b>J. Ground Tackle:</b>		
Anchor		
Shackles		
Chains		
Rode		
Dock Lines		
Fenders		

K. Fire Fighting & Safety Equipment:		
Item	Comment	Condition
Personal Floatation Devices (PFD)		
Throwable PFD		
Fire Extinguishers		
Visual Signal Devices		
Audible Signal Device		
Back-Fire Flame Arrestor		
Ventilation		
Power Exhaust Blowers (Gas)		
Navigation Lights		

# SEA TRIAL REPORT

The \_\_\_\_\_ was operated from \_\_\_\_\_ to \_\_\_\_\_ between the hours of \_\_\_\_\_ and \_\_\_\_\_ on \_\_\_\_\_.

The vessel was operated by \_\_\_\_\_.

Attending the sea trial were \_\_\_\_\_.

## OBSERVATIONS:

1. Did engines start without excessive cranking?
2. Did engine exhaust appear normal?
3. Did cooling water exhaust appear adequate?
4. Did engine instruments operate within normal operating limits:
  - a. At idle \_\_\_\_\_
  - b. Cruising speed \_\_\_\_\_
  - c. Maximum throttle \_\_\_\_\_
5. Speed Run (with autopilot engaged for 1 mile):
  - a. Manufacture's recommended max RPM \_\_\_\_\_
  - b. Engines reached \_\_\_\_\_ RPM at full throttle.
  - c. Speed (measured with GPS): \_\_\_\_\_.
6. Handling Characteristics:
  - a. Did steering system operate normally?  
(Series of turns, over/under steer?)
    - i. Slow \_\_\_\_\_
    - ii. Half \_\_\_\_\_
    - iii. Full \_\_\_\_\_



- b. Did throttles operate normally?
- c. How does the vessel trim out while getting up on the step?

7. Helm Response (tracking)

- a. Idle speed \_\_\_\_\_.
- b. Cruise speed \_\_\_\_\_.

8. Was Back Down test satisfactory (hard astern and hard forward)?

- a. Did transmissions operate normally/smoothly?
- b. Condition of engine mounting system \_\_\_\_\_.

9. Did engine:

- a. synchronizer \_\_\_\_\_,
- b. autopilot \_\_\_\_\_,
- c. trim tabs \_\_\_\_\_,
- d. bow thruster \_\_\_\_\_, operate normally?

12. Were oil or coolant leaks observed?

10. Noise from water-pump bearings?

11. Water leaks from stuffing box?

12. Were any vibrations noted?





13. Excessive shaft run out?

**COMMENTS:**

# Trial Run Data

PORT ENGINE							STARB ENGINE							
		BATT.	RPM	WATER TEMP.	OIL TEMP.	OIL PRESS.			BATT.	RPM	WATER TEMP.	OIL TEMP.	OIL PRESS.	
Slow														Slow
Half														Half
Full														Full

# United States Coast Guard Office of Boating Safety

U. S. COAST GUARD MINIMUM REQUIREMENTS FOR RECREATIONAL VESSELS				
EQUIPMENT	CLASS A Less than 16ft/4.9m	CLASS 1 16 to less than 26 ft/7.9m	CLASS 2 26 to less than 40 ft/12.2m	CLASS 3 40 to not more than 65 ft/19.8m
 <b>Personal Flotation Devices (PFDs)</b>	One approved Type I, II, III or V (must be worn) PFD for each person on board or being towed on water skis, tubes, etc.		One approved Type I, II or III PFD for each person on board or being towed on water skis, etc.; and one throwable Type IV device. ( A type V PFD may be used in lieu of any wearable PFD, if approved for the activity in which it is being used. <b>A TYPE V HYBRID MUST be worn to be legal.</b> )	
<b>Check state laws for PFD requirements for children and certain water craft &amp; sports.</b>				
<b>Bell,</b>    <b>Whistle</b>	Every vessel less than 39.4 ft (12 meters) in length must carry an efficient sound producing device.		Every vessel 39.4 ft (12 meters) or larger in length must carry a whistle and a bell. The whistle must be audible for 1/2 nautical mile. The mouth of the bell must be at least 7.87 inches (200mm) in diameter.	
<b>Visual Distress Signals</b> (Coastal Waters, the Great Lakes & US owned boats on the high seas)	Required to carry approved visual distress signals for night-time use.		Must carry approved visual distress signals for both daytime and night-time use.	
				
 <b>Fire Extinguisher</b> (Must be Coast Guard approved)	One B-I type approved hand portable fire extinguisher. (Not required on outboard motorboats less than 26 ft in length if the construction of the motorboat is such that it does not permit the entrapment of explosive or flammable gases or vapors and if fuel tanks are not permanently installed.)		Two B-I type <b>OR</b> one B-II type approved portable fire extinguishers.	Three B-I type <b>OR</b> one B-II type <b>PLUS</b> one B-II type approved portable fire extinguishers.
<b>When a fixed fire extinguishing system is installed in machinery spaces it will replace one B-I portable fire extinguisher.</b>				
<b>Ventilation</b> (Boats built on or after 8/1/80)	At least two ventilation ducts capable of efficiently ventilating every closed compartment that contains a gasoline engine and/or tank, except those having permanently installed tanks which vent outside of the boat and which contain no unprotected electrical devices. Engine compartments containing a gasoline engine with a cranking motor are additionally required to contain power operated exhaust blowers which can be controlled from the instrument panel.			
<b>Ventilation</b> (Boats built before 8/1/80)	At least two ventilation ducts fitted with cowls (or their equivalent) for the purpose of efficiently and properly ventilating the bilges of every closed engine and fuel tank compartment using gasoline as fuel or other fuels having a flashpoint of 110 degrees or less. Applies to boats constructed or decked over after April 25, 1940.			
<b>Back-fire Flame Arrestor</b>	One approved device on each carburetor of all gasoline engines installed after April 25, 1940, except outboard motors.			
<b>Note: Some states have requirements in addition to the federal requirements. Check your state's boating laws.</b>				